

# Bypass correction could be \$46 million

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**WILLOUGHBY** - A Sewer System Evaluation Survey (SSES) concerning the Willoughby-Eastlake Water Pollution Control Center (WPCC) has been completed and an overview presented to council March 15 by the city engineer, Jim Sayles of CT Consultants.

The reason for the study was the bypasses (dumping of untreated sewage in the lake) that were occurring at the plant.

"You can see (on the graph) as the total flow increases above 10 million gallons, up to 15, 20, you can see there are quite a few bypass events that occur at the wastewater treatment plant, which obviously make sense that those would occur; those are during the heavy flows, the heavy rains," Sayles said. "The issue is they want the bypasses to be eliminated."

Flow meters were installed at a number of locations for two months. They provided baseline data and measured the increases of water during several storms. The information helped predict what would happen during a 10-year, two-hour storm to help with a long-range plan. The information should also help to determine where the areas of greatest infiltration of storm water into the sanitary sewer system were occurring.

Other components of the study included smoke testing, manhole cover testing and sewer televising to also find problem areas.

"The flow monitoring did

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point us to some areas of concern (including) the area tributary to the Quentin Road Pump Station in Eastlake, Ridge Acres and the downtown and Orchard Park area," Sayles said.

The study seemed to indicate Eastlake has more infiltration and inflow (I&I) of storm water into the sanitary system due to fewer projects dealing with I&I over the years than Willoughby.

"The flow from laterals during mainline televising at Ridge Acres tells us that foundation drains are probably tied in to the sanitary sewers," Sayles said. He added they also found some downspouts and catch basins tied into the system.

Sayles said one thing learned over the years from experience in similar situations is that correcting such problems might only be about 10 percent effective. For that reason retention basins and relief sewers will still be needed. But, he added, correction of I&I still needed to be done because otherwise if new businesses come into the city, the WPCC might run out of capacity to accommodate them.

It was noted the city does have a point of sale inspection which covers sewer connections and those have helped.

"Having said that, we can't give up," Sayles said after noting how difficult the task of correcting problems would be.

Although the city is work-

ing on a 25-year plan, the price tag would be \$46 million. The plan includes six retention basins plus a number of relief sewers.

"We met with the finance directors in Willoughby and Eastlake to talk a little bit about how the heck we could possibly do something like this and so we created a 25-year program to accomplish this," Sayles said. "But the key in here is the EPA is looking for us to stop the bypassing at the waste water plant."

The first steps would be to build retention basins at Quentin Road and by the WPCC. After those are built, he recommends monitoring the flows for a year to determine their effects. Then with some I&I projects, he is hoping not all of the other projects will be necessary.

One potential problem is the EPA wanted the study done in 12 months and steps taken to stop bypass within three years. It took 18 months for the study and even if the \$46 million was available right now, it would be impossible to complete the engineering designs and the projects in that time frame.

"We're not sure how the EPA's going to react to this," Sayles said. "They want the bypassing eliminated. They may say no; we need to build the retention basins right up front."

He said the EPA does take into account the cost of projects.

### Hydrants flushing to begin Monday

The Lake County Department of Utilities will begin unidirectional flushing of hydrants on Monday in Willoughby and Eastlake.

Flushing will continue for about two months, starting with Willoughby. Residents are asked to watch for flushing signs in their area.

Updates will be posted on the Lake County website at [www.lakecountyohio.gov/utilities](http://www.lakecountyohio.gov/utilities).

For details, call the Lake County Department of Utilities between 8 a.m. and 4:30 p.m. at 440-918-2070 or the Aquarius Water Treatment Plant (24 hours) at 440-918-3420.